

KetaSpire® KT-880 GF30

Polyetheretherketone
Solvay Specialty Polymers

Message:

KetaSpire® KT-880 GF30 is the high-flow, 30% glass-fiber reinforced grade of polyetheretherketone (PEEK). This resin offers higher strength and stiffness properties relative to unreinforced KetaSpire® PEEK resin. Reinforcement also affords greater mechanical robustness in structural applications, particularly those with service temperatures approaching 300°C.

KetaSpire® PEEK is produced to the highest industry standards and is characterized by a distinct combination of properties, which include excellent wear resistance, best-in-class fatigue resistance, ease of melt processing, high purity and excellent chemical resistance to organics, acids and bases. These properties make it well-suited for applications in healthcare, transportation, electronics, chemical processing and other industrial uses.

Beige: KT-880 GF30 BG 20
Black: KT-880 GF30 BK 95

General Information	
UL YellowCard	E140728-100211985
Filler / Reinforcement	Glass Fiber,30% Filler by Weight
Features	Autoclave Sterilizable
	Biocompatible
	E-beam Sterilizable
	Ethylene Oxide Sterilizable
	Fatigue Resistant
	Flame Retardant
	Good Chemical Resistance
	Good Dimensional Stability
	Good Sterilizability
	Heat Sterilizable
	High Flow
	High Heat Resistance
	High Stiffness
	High Strength
	Radiation (Gamma) Resistant
	Radiation Sterilizable
	Radiotranslucent
	Steam Resistant
	Steam Sterilizable
Uses	Aircraft Applications
	Connectors
	Dental Applications
	Electrical/Electronic Applications
	Film
	Hospital Goods

Industrial Applications

Medical Devices

Medical/Healthcare Applications

Oil/Gas Applications

Pump Parts

Seals

Surgical Instruments

Agency Ratings	FAA FAR 25.853a 3 ISO 10993 ISO 10993-Part 1
RoHS Compliance	RoHS Compliant
Appearance	Light Beige
Forms	Pellets
Processing Method	Injection Molding Machining Profile Extrusion

Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.53	1.53	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (400°C/2.16 kg)	14	14	g/10 min	ASTM D1238
Molding Shrinkage ¹				ASTM D955
Flow : 3.18 mm	0.10 to 0.30	0.10 to 0.30	%	
Across Flow : 3.18 mm	1.3 to 1.5	1.3 to 1.5	%	
Water Absorption (24 hr)	0.10	0.10	%	ASTM D570
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (M-Scale)	105	105		ASTM D785
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
-- ²	10800	10800	MPa	ASTM D638
--	11200	11200	MPa	ISO 527-2/1A/1
Tensile Stress				
Yield	174	174	MPa	ISO 527-2/1A/5
--	162	162	MPa	ASTM D638
Tensile Elongation				
Break	2.8	2.8	%	ASTM D638
Break	2.8	2.8	%	ISO 527-2/1A/5
Flexural Modulus				
--	10500	10500	MPa	ASTM D790
--	10600	10600	MPa	ISO 178

Flexural Strength				
--	260	260	MPa	ASTM D790
--	239	239	MPa	ISO 178
Compressive Strength	183	183	MPa	ASTM D695
Shear Strength	94.4	94.4	MPa	ASTM D732
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact				
--	96	96	J/m	ASTM D256
--	11	11	kJ/m ²	ISO 180
Unnotched Izod Impact				
--	850	850	J/m	ASTM D4812
--	62	62	kJ/m ²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	315	315	°C	ASTM D648
Glass Transition Temperature	147	147	°C	ASTM D3418
Peak Melting Temperature	343	343	°C	ASTM D3418
CLTE - Flow (-50 to 50°C)	1.9E-5	1.9E-5	cm/cm/°C	ASTM E831
Specific Heat				DSC
50°C	1280	1280	J/kg/°C	
200°C	1700	1700	J/kg/°C	
Thermal Conductivity	0.30	0.30	W/m/K	ASTM E1530
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	> 1.9E+17	> 1.9E+17	ohms	ASTM D257
Volume Resistivity	3.8E+17	3.8E+17	ohms·cm	ASTM D257
Dielectric Strength (3.00 mm)	16	16	kV/mm	ASTM D149
Dielectric Constant				ASTM D150
60 Hz	3.53	3.53		
1 kHz	3.53	3.53		
1 MHz	3.49	3.49		
Dissipation Factor				ASTM D150
60 Hz	2.0E-3	2.0E-3		
1 kHz	2.0E-3	2.0E-3		
1 MHz	4.0E-3	4.0E-3		
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.800 mm	V-0	V-0		
1.60 mm	V-0	V-0		
Fill Analysis	Dry	Conditioned	Unit	Test Method
Melt Viscosity (400°C, 1000 sec ⁻¹)	350	350	Pa·s	ASTM D3835

Injection	Dry	Unit
Drying Temperature	150	°C
Drying Time	4.0	hr
Rear Temperature	365	°C
Middle Temperature	371	°C
Front Temperature	377	°C
Nozzle Temperature	382	°C
Mold Temperature	177 to 204	°C
Injection Rate	Fast	
Screw Compression Ratio	2.5:1.0 to 3.5:1.0	

NOTE

1. 5" x 0.5" x 0.125"
2. 5.0 mm/min

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